

## Claims

1.-3. (cancelled)

4. (new) A method for protected transmission of a data signal via synchronous data networks, the method comprising:

subdividing the data signal into a plurality of virtually linked partial signals; and

transmitting the virtually linked partial signals via a plurality of data channels, wherein

at least one data channel more than needed is used for transmitting the data signal, wherein

the data signal is subdivided into partial signals transported at a lower data rate and transmitted using all data channels, and wherein

the data signal is subdivided again and allocated to remaining data channels, if there is a problem with a data channel.

5. (new) The method as claimed in claim 4, wherein the partial signals or groups of partial signals or the data channels or groups of data channels are transmitted via different physical connections.

6. (new) The method as claimed in claim 4, wherein the signal quality of each partial signal is determined individually and if at least one of the partial signals falls below a predefined quality threshold value, following appropriate feedback the partial signal in question is removed or disabled at the transmit and receive end.

7. (new) The method as claimed in claim 5, wherein the signal quality of each partial signal is determined individually and if at least one of the partial signals falls below a predefined quality threshold value, following appropriate feedback the partial signal in question is removed or disabled at the transmit and receive end.

8. (new) The method as claimed in claim 4, wherein the overall capacity of the virtually linked partial signals is greater than that of the data signal.

9. (new) A method for protected transmission of a data signal via synchronous data networks, the method comprising:

subdividing the data signal into a plurality of virtually linked partial signals;

determining a number of data channels needed for transmitting the virtually linked partial signals based on characteristics of the data signal; and

transmitting the virtually linked partial signals via a plurality of data channels, wherein

the plurality of data channels exceeds the determined number of data channels by at least one, wherein

the overall capacity of the virtually linked partial signals is greater than that of the data signal, and wherein

all data channels are used for transmitting.

10. (new) The method as claimed in claim 9, wherein the partial signals or groups of partial signals or the data channels or

groups of data channels are transmitted via different physical connections.

11. (new) The method as claimed in claim 9, wherein the signal quality of each partial signal is determined individually and if at least one of the partial signals falls below a predefined quality threshold value, following appropriate feedback the partial signal in question is removed or disabled at the transmit and receive end.

12. (new) The method as claimed in claim 10, wherein the signal quality of each partial signal is determined individually and if at least one of the partial signals falls below a predefined quality threshold value, following appropriate feedback the partial signal in question is removed or disabled at the transmit and receive end.

13. (new) The method as claimed in claim 9, wherein the data signal is subdivided again and allocated to remaining data channels, if there is a problem with a data channel.